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PLANNING WHOLESALE MARKETS

THE CASE OF THE GREATER MANILA TERMINAL FOOD MARKET

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I. INTRODUCTION

1. Agriculture in the Philippine Economy

For many centuries the Philippines has been an agricultural country. Its vast land, water and mineral resources have been the main source of livelihood for the great majority of its people. Although there has been a gradual shift from agricultural to non-agricultural activities during the past two decades, agriculture continues to dominate Philippine life. Over half of the labor force is engaged in some agricultural undertaking, while 25 to 30 per cent of gross national product emanates from agriculture. The country's external trade relies heavily on agriculture. In 1968 Philippine exports of products arising from agriculture (excluding mining) accounted for some 70 per cent of total domestic exports.

2. Known basic problems

Many of the country's economic problems stem from the agricultural sector's inability to fulfill its role satisfactorily.

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The National Economic Council reports that during calendar years 1966 and 1967, available food supply versus established nutritional requirements showed the following sufficiency levels:

Food Group	Per Cent Sufficiency
Fruits and Vegetables	52.6
Meat and Poultry	84.5
Fish and other Marine Products	90.0
Milk and Milk Products	100.0
Eggs	63.6
Pulses and Nuts (excl. coconuts)	25.0
Rice, milled	81.6
Corn, milled	95.7
Roots and Tubers	128.2

It should be noted, however, that the above sufficiency levels are the ratio of requirement to available supply, including imports. Imports are substantial for certain food groups, such as milk (98.20%) and dry beans (27.6%); minimal (as importation relative to gross supply) in the case of rice (5.79%), corn (1.76%), meat and poultry (1.32%) and fish and other marine products (4.40%). In absolute quantities and foreign exchange expended, imports even of the latter items have been staggering.

Sharp imbalances between food supply and demand should be viewed, not only from the point of view of production being short of requirement, but also in terms of seasonable shortages brought about by traditional production patterns, the highly perishable nature of produce, and the ineffectiveness of the distribution system in spreading out agricultural output among the various segments of the population.

Food sufficiency levels, adequate as they are in some cases, are deceptive for the same reason that per capita incomes are deceptive: they conceal inequities in distribution.

Inequities in distribution arise from a lack of both marketing facilities and of an orderly marketing organization. Cold storage capacities to help even out seasonalities in supply are inadequate; transport facilities are limited and obsolete; containers and handling practices are crude and wasteful; farmers and traders are handicapped by lack of capital; there is no nationwide market information system to guide production and trading decisions.

The apparent outcome of these conditions are that prices of produce fluctuate over a range of as much as one thousand per cent over a year; losses from spoilage of perishables and semi-perishables are high; marketplaces are messy and unsanitary; farmers are at the mercy of unscrupulous middlemen. The net effect of an inefficient marketing system is that farm incomes are low while consumer prices are high, with most of the gap eaten up by wastage and unnecessary expenses.

II. GMTFM CHRONOLOGY

Responding to the long-felt need to establish an efficient and effective link between the suppliers and users of farm produce, President Ferdinand E. Marcos issued an executive memorandum on January 16, 1967 creating a committee to study the organization of a farmers' marketing system in the country. The committee, composed of Undersecretary of Agriculture Dioscoro L. Umali as chairman, Presidential Economic Staff Director-General Placido L. Mapa, Jr., and DBP Chairman Gregorio S. Licaros, as members, conducted the necessary studies, culminating in a project proposal submitted to the President on July 28, 1967. The proposal calls for the establishment of a combined producer-transit-wholesaler market complex where farmers/producers can bring, collect, store and dispose of their produce on wholesale basis or in bulk under ideal conditions, with or without the intervention of necessary intermediaries.

President Marcos approved the project on September 11, 1967. An inter-agency committee composed of technical staff members of the Bureau of Agricultural Economics (of the Department of Agriculture and Natural Resources), the Department of Commerce & Industry, and the Development Bank of the Philippines was immediately formed. The President chose the Development Bank of the Philippines as the implementing agency.

The DBP was deemed the most appropriate agency to execute the recommendations of the committee because of the bank's deep involvement in agriculture. Latest (June 30, 1969) financial statements report an aggregate financial assistance of ₱862.7 million to the agricultural sector during the DBP's 22-1/2 years of operation. With such a big stake in agricultural production, the DBP is naturally concerned with the agricultural marketing function. Furthermore, its enormous resources (totalling ₱2.44 billion as of June 30, 1969), particularly when viewed in the context of its development banking function, places it in the best position to undertake a massive nationwide project, such as the one contemplated. On January 11, 1968, a small DBP task force, headed by a project director, was organized to implement the GMTFM project. The group prepared the work program and timetable which have, since then, served as the basic project guide.

III. DETERMINATION OF SPECIFIC MARKETING PROBLEMS

1. Production and Marketing Surveys

To narrow down the marketing problems to which the project would address itself, and to provide the foundation for planning the necessary marketing facilities to be constructed and the services to be offered, several surveys and studies were undertaken.

a. Survey of Wholesale Distribution Patterns and Practices

A team of DBP agriculturists and economists conducted a study of production and marketing practices in several municipalities that are known suppliers of fruits, vegetables, cereals, meat and fish to the Greater Manila area. The study included a survey of existing and required cold storage facilities for current and expected production. Finally, preliminary estimates of food supply and demand were computed, with the view to determining the extent of marketing network required.

b. Marketing Survey Report by the Inter-Agency Committee

A massive inquiry among truckers and food crops merchants, inter-island shippers and representatives of the railroad company was undertaken under the direction of the Inter-Agency Committee. The specific objectives of the survey were:

1) To determine the various kinds of fruits and vegetables being marketed throughout the year;
2) To estimate the monthly flow of these commodities into the Greater Manila area;
3) To study the transportation facilities used in marketing the products; and
4) To ascertain the different stages that these commodities pass through in the marketing progress.

c. Study of the Marketing Mechanism for Selected Foods by the Economic Development Foundation.

To supplement information obtained in the Inter-Agency Committee survey, the Economic Development Foundation (an independent consulting firm) was requested to put together into a comprehensive report pertinent observations and findings of its previous studies on the marketing systems, practices and patterns for the basic food items.

d. Survey of Wholesalers by the UP College of Business Administration

As a means of gathering economic information direct from the middleman sector, a limited survey of wholesalers operating in the market places of Greater Manila was undertaken by interviewers from the University of the Philippines College of Business Administration. The data gathered included volume of business handled by wholesalers, kinds of crops handled, sources of produce, credit assistance received, capital invested, and facts about the usual marketing routine, such as time of day produce is delivered, height of trading activity, etc.

2. Isolation of Problems

An analysis of the surveys undertaken led to the isolation of specific problems and defects in the wholesale distribution of agricultural food products in the Philippines, the unfavorable effects of which are felt from the production level, all the way down the distribution chain to the ultimate consumers. These problems may be summarized as follows:

a. Inadequacies in the distribution process, such as disorganized, haphazard marketing channels, costly interruptions in the transport of goods, lack of up-to-date price and market information, etc.

b. Lack of necessary facilities for storage, refrigeration, handling, transport and trading of goods;

c. Absence of grading and standardization procedures;

d. Dearth of marketing credit;

e. Improper packing and packaging; and

f. Lack of quality control.

These have resulted in situations where:

a. Farmers/producers receive relatively low income from sale of their produce primarily because the absence or inadequacy of alternative outlets force them to accept whatever prices are offered by middlemen.

b. Low farm prices discourage production, thus restricting supply of food commodities. Adverse weather conditions, as well as artificial manipulation of stocks by distributors, may further limit available supply.

c. The limited supply, in turn, leads to increases in price to consumers of almost all agricultural food items. Erratic fluctuations of prices paid to farmers, through their influence on production decisions, contribute to the already unstable condition, thereby aggravating existing imbalances between supply and demand.

The problems are many and pressing. They have long defied solution, but possibly only because the remedial measures hitherto taken have not struck at a basic defect; the inefficient distribution process.

IV. DETERMINATION OF WHAT WHOLESALE DISTRIBUTION SYSTEM TO ADOPT

In principle, food wholesale markets may be classified into three types:

1) the producer market;

2) the transit market; and

3) the central wholesale market.

Producer markets are situated in the main producing areas and serve the purpose of centralizing sales and shipment of products over long distances, mostly to central wholesale markets and transit markets. Many assembly markets are managed by farmers on a cooperative basis. A typical example of farmer assembly markets in Europe is the cooperative fruits and vegetables auction in the Netherlands. These markets provide facilities for the collection of large quantities of farm products, cleaning, grading and packing of produce. Sometimes there are also facilities for short-term storage and processing. The products are sold by auction or directly to the buyer.

Transit markets are collecting and distributing centers for domestic and imported produce. Transit markets in Europe are in Amsterdam, Covent Garden, Hamburg, Lyons, Munich and Verona. These markets have facilities and installation for large scale handling and distribution of produce. Often they are located at a seaport or on important rivers and main transit roads. Besides satisfying local demand, they forward produce to markets elsewhere and export.

Central wholesale markets (terminal markets in the United States) are located in important consuming centers. Their purpose is to satisfy the local city demand and sometimes surrounding areas.

Outstanding features of the New York City Terminal Market, which is the largest, latest and most modern complex in the world, left deep impressions with the planners of the Philippine terminal market. The New York City Terminal Market is a broad spectrum center for the processing, handling, distribution and wholesaling of food primarily for the benefit of the 16 million population of the New York City metropolitan area. The entire complex comprises:

1) Food markets - of fruits and vegetables meat, fresh and dairy products;
2) Flower market;
3) Food processors and distributors; and
4) Support facilities (deepwater berths, rail, warehouses, refrigeration, services, etc.).

When completed, the market will operate three market systems, each of which, at the time of observation, was practised in separate locations in the city. These are:

1. Wholesale jobbing. By this method, commission agents or "jobbers" receive products directly from the producer on

consignment or credit basis under an existing agreement. They then sell the products to retail outlets or large consumers, like hotels, chain stores or restaurants, for which they either get an agreed commission or make their own margin.

2. Negotiation method, by which producers, without previous agreement or understanding with the buyers, bring their products to the market and negotiate directly and individually with buyers. A "farmers market" particularly refers to this mode of transactions.
3. Auction. This is conducted by authorized auctioneers for a fee or commission.

Aside from the markets separately for produce, meat, fish, dairy products and flowers and from the food processing plants that may be set up in the area, the market complex will have sample halls, an auction building, refrigerated warehouse, a rail system, waterfront facilities, and a bagged and miscellaneous food facility section. Market center supports will consist of restaurants, motels, banks, laundries, garages, parking areas, maintenance ships, clinics, barber shops, and general office space.

While well established produce markets abroad generally come in at the distribution levels, any attempt at modernizing the marketing system in the Philippines must necessarily encompass a still broader range of activities, going as far backwards as the provision of credit to finance inputs and operating expenses, all the way forward to finding a ready market for the produce.

It was on the basis of the foregoing considerations that final plans for the Greater Manila Terminal Food Market were drafted. Taking into account the need to undertake such a broad spectrum of activities, the construction of one central terminal market would optimize the utilization of DBP resources allocated to the project, without prejudice to the establishment of smaller markets in other parts of the country in the future.

DETERMINATION OF GMTFM PHYSICAL STRUCTURES AND SERVICES

1. Choice of Location

The Greater Manila area, comprising the cities of Manila, Caloocan, Pasay, and Quezon and the municipalities of Malabon, Navotas, Makati, San Juan, Parañaque and Mandaluyong, was the logical choice for the site of the first terminal food market of its kind to be established in the Philippines. The strategic value of the area is underscored by the fact that it is centrally located and is the hub of Philippine commerce and industry, and of the nation's economic, social and political life. Practically, all big business firms have their offices in Manila; the few based elsewhere maintain offices there. All national agencies and foreign missions are situated also in Manila.

The total land area of Greater Manila is 38.3 square kilometers; its estimated 1969 population, 2,844,000. Should present natural population rates continue, population would reach 3,109,000 by 1970 and 4,452,000 by 1980.

Total income in the area was over ₱3 billion in 1965, representing 23% of total Philippine income. Average annual income was ₱6,590 per family, more than three times that of the national average. In 1965, average family expenditures in Metropolitan Manila amounted to ₱6,685, while the average for other urban was only ₱3,732, and for rural areas, ₱2,142.

Metropolitan Manila accounted for 20% of total Philippine expenditures in 1965. It is generally recognized that Manila serves as a collection and distribution base as well as clearing house for most agricultural food products of economic importance. Food crops raised, for instance, in Pangasinan would find their way first to Manila before redistribution to more contiguous areas in the North.

After the decision to locate the market in Greater Manila, finding a suitable area to build the facilities presented a more difficult problem. Being a fast-growing metropolis, most of the choice, centrally-located, lots were either privately owned and reserved for commercial or industrial purposes, or were not vast enough to contain such a massive market complex. The only available site that could reasonably fulfill the GMTFM requirements was a portion of the military reservation, Fort Bonifacio, located in the outskirts of the city. It is easily accessible by road from both northern and southern Luzon, by rail from Southern Luzon, and is close to a water source, Laguna de Bay.

On February 22, 1968, President Marcos reserved 120.4 hectares in Fort Bonifacio for the market site under Presidential Proclamation No. 347.

Immediate relocation of some 1,400 squatter families in the Market site was the first major undertaking. The Land Authority provided a 20-hectare area within the Authority's resettlement project in San Pedro, Tunasan, Laguna as relocation site. The relocation project was approved by the President on March 8, 1968, and in two weeks' time, basic development of the site was completed under DBP financing. With assistance and cooperation of units of the Philippine Army, Philippine Constabulary, PACD, PNRC, and SWA, orderly squatter relocation and clearing of market site were effected within set timetables.

2. Projections of Volume of Business

To countercheck and supplement volume estimates developed from the marketing surveys, estimates from a "macro" approach were prepared in the following sequence:

a. Philippine supply of relevant commodities in previous years was determined and historical trend computed.

b. Total regional supply, assuming that regional distribution of food expenditures is indicative of regional consumption patterns, was allocated.

c. Supply and demand in 1969 and succeeding years based on trend and other indicators were projected.

d. Market share of probable transactions in the Greater Manila area and other areas accessible to GMTFM was assumed.

Following this methodology and incorporating pertinent findings of the marketing and production surveys, it was projected that the GMTFM will handle some ₱161 million worth of fruits, roots, vegetables, cereals, fish and meat during the first year of operation, 1969-1970. This figure targetted a market share for GMTFM of expected transactions in the Greater Manila area to the tune of the following percentages:

40 per cent for fruits, roots and vegetables
20 per cent for fish and meat
5 per cent for cereals

The estimated volume also reflected nominal percentages of transactions in other regions expected to be transferred to GMTFM, based on such factors as:

a. Efficiency and adequacy of present marketing system in the region;
b. Distance to the GMTFM;
c. Supply conditions (i.e., whether or not the region is a food supplier); and
d. Availability of transportation.

As the GMTFM staff undertook more and more pre-operating studies, estimates of volume were subsequently revised, particularly to take account of many omissions and understatements of the first estimates. A very important factor leading to the revised estimates was the upward adjustment of values brought about by more extensive collection of price information by the GMTFM staff itself.

The revised estimates make use of a total "flow-of-goods" approach. That is, the quantities of agricultural produce expected to pass through the Greater Manila Area are estimated and certain percentages of these are assumed to pass through GMTFM as the latter's market share. The "flow-of-goods" through Greater Manila includes:

a. Household consumption by residents of GMA;

b. Household consumption by residents in other regions expected to pass through (or be purchased in) GMA;

c. Institutional demand, including purchases by:

   1) Food processors,

   2) Hospitals and hotels,

   3) Others, and

d. Exports of fresh food items.

Assuming an annual rate of growth of 5% in quantities produced, and constant 1968 prices (simply assuming that the downward pressure in prices caused by increased supply will be more or less nullified by increases in population and in income), quantities and value in 1968 were simply increased by 5% per year. Based on more current information gathered, expected market shares were also revised as the following percentages of the total flow of goods through the Greater Manila Area:

Food Group	"Market Share"
Cereals	10%
Roots and tubers except potatoes	20 to 10
Leafy vegetables	40
Fruit vegetables	40
Beans, peas, legumes	20
Peanuts, onions, etc.	40
Bananas, papaya	40
Other fresh fruits	40
Garlic, ginger, etc.	40
Poultry	40
Pork	30
Beef and others	20
Egg	40
Fish	30

Revised computations place the value of arrivals at the GMTFM during the first year of operation (postponed then to mid-1970) at ₱325.871 million, building up to ₱660 million by the tenth year. Major break-downs for expected volume of transactions during the first year are as follows:

Food Group	Quantity (in MT)	Value (in ₱000)
Cereals	32,220	₱ 17,913
Fruits, Roots and Vegetables	249,216	93,764
Meat	41,714	133,419
Eggs	13,477	25,877
Fish	42,557	54,878
TOTAL		₱325,871

Full details of forecasted flow of goods through GMTFM are shown in Appendix A.

3. Design of Facilities

Specific facilities and services to be offered at GMTFM were adopted from the findings of studies and observation tours of consultants and members of the GMTFM staff in the produce markets of Taiwan, San Francisco, Atlanta, Philadelphia, New York, Netherlands, Hamburg, Milan and Greece. Certain modifications took cognizance of the peculiarities of the Philippine scene. Some examples of the observed differences between conditions abroad and those obtaining locally are as follows:

a. The "jobber" system thrives very well in the U.S. and is the principal method of marketing produce. This is not so in the Philippines.

b. American farmers either operate their own transportation fleet or ship their produce directly to jobbers with whom they have existing contracts. In Manila, farm produce is brought to the city markets (almost entirely to Divisoria) through the "pakiao" system; on smaller scale, some farmers bring their produce to the market for retail. Wholesalers are concentrated in the area around Divisoria where they maintain storerooms or warehouses.

c. The transportation system in the U.S., unlike in the Philippines, is highly efficient. It is not unusual for a produce to reach the consumer's table within 24 hours from the time it was picked in the field on a coast-to-coast basis. Perhaps, in certain cases, the terminal market may have to provide transportation facilities.

d. Filipinos as a whole do not yet have a taste for refrigerated food. Probably, in the beginning until more and more Filipinos acquire a taste for refrigerated food, storage facilities should be constructed on the basis of fast turnover.

Simultaneously, an educational campaign for the merits or at least the "harmlessness" of refrigerated food may be launched.

The major facilities decided to be incorporated in the final plans include:

a. Wholesalers' Stores

1. Three big buildings for fruit and vegetable wholesalers, with a combined area of 173,000 sq.m., containing 405 store units. Each store will measure 6 x 30 meters and will have a total floor area of 180 sq.m., including loading and unloading platforms, and a mezzanine with an area of 60 sq.m., thereby providing ample space for display and storage. A total of 202 store units will be provided with cooler rooms and refrigeration facilities for keeping vegetables and fruits fresh at reasonable rental rates. An additional 192 store units will be set up after or during the first year of operation.
2. One building for fish wholesalers, consisting of 30 store units to be rented to wholesalers dealing in fish and marine food products. Each unit will contain a total floor area of 180 square meters, including loading and unloading platforms, and with a mezzanine of

60 square meters. All units will be provided with refrigeration facilities. An additional 30 store units for fish wholesalers will be provided after or during the first year of operation.

3. One building for meat wholesalers, consisting of 30 store units all with refrigeration facilities. Each unit will have an area of 180 square meters, including loading and unloading platforms. An additional 30 store units are envisioned in the second year of operation.

4. One building for cereal wholesalers, consisting of 24 store units, each measuring 6 x 30 meters or with a total floor area of 180 square meters, including loading and unloading platforms. The units will be rented to wholesalers dealing in rice and corn.

b. Farmers' Sheds

There will be eight sheds, each containing 18 stalls, for a total of 144 stalls. Each stall will measure 3.05 x 3.66 meters, comprising an area of 11.163 square meters, with ample space for farmers to display their produce and conveniently negotiate sales directly with authorized buyers. A nominal fee for using a stall will be charged on a day-to-day basis.

c. Auction Hall

Farmers/producers, their cooperatives, and trucker-merchants may sell their produce through public auction conducted by the GMTFM management. This feature of GMTFM operations is patterned, to a large extent, after the Dutch auction system. The GMTFM will provide an auction building of such sufficient size as will house two auction rooms, each with a seating capacity of 160 persons, a display area where goods are exhibited for buyers to examine, and a space for sorting, classifying and grading the goods before they are actually "put on the block."

The auction room will be similar to an auditorium with tiered seats to enable participants to view the auctioneer and the produce or samples from their seats. On the wall behind the auctioneer will be installed an auction clock from which auction participants can closely follow prices. For every lot offered for sale, the prices will be shown successively by the hand of the clock in diminishing order (from the highest possible price) and, as soon as the buyer thinks the price is attractive, he presses a button on his seat. The moment the hand of the clock stops (indicating the price bidded) as a result of his pressing the button, the buyer's seat number will be indicated on the clock. The bidded price and identity of the winning bidder are noted and recorded automatically. The winning bidder immediately makes payment and farmer/producer is given the proceeds of the sale after deduction of commission.

Only accredited buyers, mainly wholesalers, brokers/ buyers' agents qualified retailers and institutional buyers composed mostly of hotels, restaurants and food processing plants, who have posted the required bond, will be allowed to participate in the auction.

A novel feature of the GMTFM auction system will be the commodity advance which will be extended to the farmer/ producer who wants to have his produce auctioned on a set date in anticipation of a better price. As soon as the farmer has brought in his produce, its value will be evaluated by the Market staff and, depending on the quality and in accordance with grading standards, he will be given an advance equivalent to a certain percentage of the estimated sales price, to enable him to meet his immediate needs before the sale. He gets the balance of the sales price, minus the auction commission, immediately after sale.

Selection of goods considered eligible for auction will be based on standards depending on the lasting quality, demand and variety of the produce. Before they are auctioned, the goods will be sorted, classified and packed in standard containers by the GMTFM for a fee, if they have not yet been so done by the producer or shipper himself. They will be identified by code and exhibited in the display areas for prospective buyers to examine.

d. Central Refrigerated Warehouse

This will have a total capacity of 120,000 cubic meters, 60,000 cubic meters of which will be for fruits and vegetables and the other 60,000 cubic meters for meat and fish. Farmers/producers, wholesalers and other authorized persons may use these facilities at nominal rates. Incorporated in the cold storage set-up is an ice-making plant to take care of the Market's ice requirements.

e. Warehouses for Cereals (Rice and Corn)

These consist of two buildings with a combined capacity of about 500,000 cavans. Additional warehouses will be constructed as the need arises.

Other structures that may be expected to be found at the market site at or before full operations include a repacking building for the packaging of produce upon arrival from the farms, manufacture of containers, and the reconditioning and storage of re-usable containers; a laboratory with modern equipment and facilities for food technology research; a central control building where facilities for testing the quality and accuracy of weight and volume measurements of produce will be provided; parking spaces and truck transfer areas capable of accommodating 2,000 cars and about 4,700 trucks and vehicles; access and market roads 20-50 meters wide to facilitate flow of produce to and from the market; a three-story administration building to house management offices, communications and post offices, and office spaces for lease to brokers, traders and merchants who will be doing business in the market; and ancillary facilities such as general merchandise stores, banks, restaurants, communication facilities, clinic, police stations, gasoline service stations, bus stations, drivers' lodge, exposition hall, fire station, water tanks, storm drainage and sewer systems, internal transit system, emergency power generating units, handling and transportation equipment (such as conveyors, forklifts, pallet pushers, handcarts, refrigerated and non-refrigerated trucks), railway facilities and security fence and perimeter road -- all for the utility and the convenience of farmers, producers, traders, and buyers who will transact business in the market.

4. Operational Programs

GMTFM's attraction to sellers and buyers, and in effect its worth to the economy, lies not only in its modern facilities but also in the operational programs offered. The following services are considered necessary adjuncts to any successful agricultural marketing system:

a. Credit assistance

An important feature of GMTFM operations will be the availability of financial assistance for producers/farmers, farmers' marketing cooperatives, wholesalers and trucker merchants. Providing loans at special terms, the financing programs will eliminate traditional dependence of these groups upon unscrupulous financiers and middlemen.

Production loans will be extended to qualified producers/farmers to cover working or operating capital requirements such as land preparation, seeds, fertilizers, and insecticides. The amount of loan shall be determined on a case-to-case basis depending on the actual needs of the applicant and the kind of crop to be raised. Commodity loans will be granted to producers/farmers to tide them over until they can sell their produce at the best obtainable price at the GMTFM, to be secured by goods covered by GMTFM warehouse/trust receipts. Marketing loans will be extended mostly through farmers' marketing cooperatives to finance costs of warehouse construction, acquisition of packing, grading and/or transportation equipment.

To accredited wholesalers and trucker merchants, two types of loans will be available:

- Secured loans for operating capital and/or purchase of necessary equipment; and
- Short-term commodity loans against goods covered by warehouse/trust receipts issued by the GMTFM.

b. Promotion of Farmers' Marketing Cooperatives

The promotion and organization of farmers' marketing cooperatives will be undertaken by the GMTFM to effectively assist farmers/producers in dealing with the Market.

The idea is to impress upon farmers, particularly the small independent growers, that their advancement lies more in pooling their resources together and in helping themselves rather than dependence upon government for solutions to their problems. Cooperatives will be organized in areas which are major supply sources of quality fruits and vegetables. Once established, the cooperatives will be provided financial support and technical guidance by the GMTFM to enable them to stand firmly on their own. Successful operation of these cooperatives will encourage other farmers' groups to band together of their own volition.

c. Grading and Standardization of Produce

Any system of grading produce is of value only if it insures that consumers obtain produce of the quality and kind desired. Market returns are generally improved when the different varieties and quality of produce each find their most appropriate market. It would be a mistake to lose the clientele of customers prepared to pay high prices for uniformly high quality produce by including inferior produce in lots sold to them.

The GMTFM also placed importance on other advantages of marketing on the basis of standard grades. For instance, sales can take place without personal inspection, disputes can be more easily settled, and more reliable price and supply information can be made available. Ability to furnish an accurate description of produce in storage may also help an enterprise in obtaining credit.

Grading and standardization consist of arranging produce into a number of categories according to physical and quality characteristics of economic importance. In developing a grading system, the GMTFM reasonably starts with a thorough study on the pattern of production, consumption and trade. Grade specifications will then be worked out with those traders who would most likely take advantage of them. In order that consumers may take full advantage of a grading system, the grade indications used will have to be clear and easily understood.

Commodities will first be classified according to varieties before application of any grading criteria. All marketable produce will then be sorted into uniform grades, done with reference to the different factors affecting quality, such as appearance, color, blemishes, bruises, insect damage and deformities.

d. Development of Fresh Food Preservation & Storage Techniques

Farm produce brought and traded in the GMTFM would undoubtedly raise certain problems inherent to the nature of the goods. For this reason, among others, the GMTFM will have a Fresh Food Produce Research Unit, equipped with modern precision equipment to study and promote practices and techniques that will prolong the shelf life of farm produce without impairing their inherent qualities; set up quality control standards for handling, transporting and storing fresh commodities; establish standards for classification, grading and packaging of fresh produce; determine the shelf lives of fresh produce as a basis for amounts of commodity loans and advances to be granted by the GMTFM; and study and recommend promotion of superior varieties of farm produce.

To enable the unit to perform these functions effectively, it will be provided with fresh produce, microbiology, chemical analysis and organoleptic laboratories, cold storage and instrumentation rooms, and a chemical storeroom.

Food preservation studies will consist of researches in areas of controlled temperature and humidity to prolong the shelf life of each type of produce; preservation through freezing in anticipation of surplus farm produce resulting from the various incentives that will be provided farmers.

e. Standardization, Packing and Packaging

In tropical regions like the Philippines, fruits and vegetables deteriorate very rapidly, resulting in a high proportion of waste, another major reason why local marketing becomes an expensive process. A primary aim in a marketing improvement program should thus be the reduction of such losses to a minimum. Substantial savings can be achieved by suitable packing/packaging, which will enable the produce to survive transport and storage and reach the consumer in good condition.

The GMTFM, therefore, will conduct continuing studies to determine the kind and method of packing/packaging for each type of produce using such criteria, as the nature of the produce, availability, quality and cost of the packing/packaging material, adaptability of the design, shape, weight and kind of packing/packaging to the transport and materials handling methods in use, production considerations (of the package), and acceptability of the package in the trade.

f. Market Information System

For the proper guidance of producers, dealers and consumers, a daily price information system will be devised by the GMTFM to disseminate daily price quotations through electronic screens at strategic locations in the Market itself; daily bulletins containing price quotations to be distributed to persons trading at the GMTFM and to interested parties outside; publication of price quotations in leading newspapers, similar to stock exchange quotations; and, broadcast of daily quotations over regional/local radio stations.

A regular publication, coming out either fortnightly or monthly, containing valuable information and data on market developments, analyses of supply and demand of specific foodcrops, technical information, and news items of interest and value to producers and dealers alike, will be published by the GMTFM.

Special news or information will be published in the form of brochures and leaflets and disseminated among parties concerned as may be needed from time to time.

The proposed market information system will be an effective tool in synchronizing production and demand, stabilizing prices and expediting trading transactions on farm produce.

g. Quotation Trading

The development of grading and standardization methods and the establishment of an efficient price and market information system for farm produce will lead to, if not actually induce, quotation trading of food commodities, similar to securities trading. The value of this mode of trading lies in the fact that trading of farm produce will be possible between parties without necessity of direct personal contact, thereby enlarging the market for such produce.

h. Modern Handling and Transport Methods

The basic objectives of the GMTFM system of materials handling -- the movement and storage of goods -- are to save money and time by minimizing damage or spoilage of commodities handled, and to reduce the number of required laborers by making them work easier through use of better methods and equipment.

Materials handling costs, in some instances, take up to 90% of the cost of the commodities. Pertinent studies show that produce may be handled as many as 50 times before it reaches the final consumer, adding substantially to the final cost of the product.

For this reason, materials handling will be a major factor in GMTFM operations planning. Continuing studies will be made on suitable mechanized equipment, on time and motion, on work flows, on containerization and packaging, and on related matters.

The transportation facilities proposed for the GMTFM include external transportation, an internal transit system, and transportation for Market use. Transportation equipment will have to be centrally maintained in order to optimize maintenance.

The external transportation will provide an efficient means of transporting commodities coming to and from the GMTFM. It is likewise intended to minimize spoilage of farm produce through the use of better facilities and of an efficient handling system. The number of transportation units to be operated by GMTFM will be kept at a minimum. Independent truck operators will be encouraged to provide the external transportation needs of the Market under mutually suitable arrangements.

The internal transit system will provide shuttle bus services to those doing business or working in the Market. The buses are intended to carry passengers only. Materials will be handled by the Market's materials handling facilities. Shuttle buses will be of the type designed for short stops, similar to those used at international airports. Each bus will be provided with a wide door at the side and at the rear and will have wide aisles with side seats and a number of hand-grasps for standing passengers. The buses will be owned and/or operated by a qualified private company or person. GMTFM may provide for the maintenance and repairs of these units so that these will be, at all times, properly operated. Manpower and operating costs will be for the account of the operator.

Transportation facilities for the GMTFM are intended to provide the transportation needs of Market employees in carrying out their official duties, as well as for miscellaneous purposes.

VI. FINANCIAL PROJECTIONS

Based on expected volume of business at full operations, assumed turn-over rates and construction time-table, the following is a summary of revised financial projections for the GMTFM project:

Major sources of funds are cash revenue receipts, cash loans, foreign loans, local loans, and capital stock, part of which would later be offered to the public. Expected total income at the first year of full operations is ₱29 million, increasing to ₱60.5 million by the tenth year.

The project is foreseen to break-even between the third and fourth years. Major break-downs are shown in Appendix B.

VII. OTHER ACTIVITIES PREPARATORY TO FULL OPERATIONS

1. Organization and Reactivation of Cooperatives

To make the GMTFM effectively operational, it must be assured that a significant volume of desirable types of farm food commodities are channelled through the Market. This presupposes that farmers would abandon their present marketing channels in favor of GMTFM, that farmers increase their production, and that farmers are convinced to adopt improved production techniques to result in better varieties of crops harvested.

As farms planted to agricultural food crops in the Philippines are small and widely scattered, it is physically impossible for the GMTFM to deal with them individually. The alternative is therefore to organize them into cooperatives, to deal with existing cooperatives, or to reactivate dormant cooperatives.

Almost since its inception, the GMTFM has devoted considerable time, effort and resources to this particular aspect of its operations. At this writing, it has already made a lot of headway. Details of the cooperatives program may be found in Appendix C.

2. Promotional Work Among Wholesalers, Large Buyers, Other Markets

While the cooperatives program assures the Market of a steady supply of commodities throughout the year, there must be a corresponding assurance of its patronage by traders and buyers, particularly since the terminal market concept is new and untried in the Philippines.

To complement the promotional spade work on farmers, the GMTFM has conducted, starting in the later part of 1968, an intensive, continuing campaign to disseminate the GMTFM concept among sellers' and buyers' groups, with the end in view of inducing their members to do their trading in the Market. Public meetings were held among public market vendors, trucker-merchants, business and civic organizations, institutional buyers, and individuals. Public relations activities were intensified, consisting primarily of magazine write-ups, press releases, speaking engagements by GMTFM officials before business, civic and professional groups, and radio-TV appearances and interviews. The general strategy in the information campaign is to reach all affected sectors of the community, propounding on the financial and qualitative benefits that will accrue to them should they decide to transfer their business to GMTFM.

3. Interim Operations

Legal bottlenecks and credit difficulties delayed the construction phase of the GMTFM project. The opening of the market, which was set for July 1, 1969, was moved to October 31, 1969, then May 1, 1970, then later postponed indefinitely. In the meantime, there was no stopping the momentum of pre-operating activities, particularly the promotions and marketing spadework. In mid-1969, it was therefore deemed necessary to undertake "interim operations," with the following objectives:

a. To arrest the feeling of disappointment that was beginning to take root among the farm producers concerned because of project delay;

b. To accustom farm producers, traders and buyers to deal with GMTFM, thereby insuring smooth transition to full-scale operations;

c. To provide GMTFM staff with the necessary experience in all phases of Market operations, from grading and standardization to materials handling and marketing, and the opportunity to ferret out and correct operational "bugs".

d. Create such impact as will generate widespread support for the entire project and enhance the success not only of

Market operations but also of the contemplated public sale of GMTFM shares of stock.

The interim program has been so phased that the scope of operations will gradually expand as systems and procedures are developed, tested and implemented. For the 7-month period from August 1, 1969 to February 28, 1970, it was not envisioned that the Market would handle a volume of produce of such significance as would strongly influence prices.

Despite the prevalence of typhoon weather and consequent adverse conditions during the first half of August, 1969, interim operations started as scheduled.

The interim marketing operations have so far been successful. Many of the innovative marketing concepts that the GMTFM planned to introduce have already been tested. These include shelf-life of commodities, grading and sizing, cold storage (using rented facilities), refrigerated container, market information for dissemination to farmers and the general public, radio communications to and from sources of produce and marketing outlets, marketing agreements with suppliers, and commodity loans and advances.

As of this writing, the GMTFM has been marketing a multitude of highland and lowland fruits and vegetables, eggs, poultry and pork, is finalizing agreements with sources and buyers of fish and beef, and operates a chicken processing plant with a one-shift capacity of 4,000 birds a day.

VIII. SUMMARY AND CONCLUSION

All the structures to be built at the GMTFM site and the corollary services it will undertake are geared to the realization of two basic goals:

1. The stabilization of prices of produce; and
2. The inducement of increased and improved quality production of farm produce.

All the planning that has gone into the project reflect the government's concern for the producer and consumer sectors of the populace and an obsession to replace old, outmoded agricultural marketing practices with a system that is more responsive to the needs of a dynamically growing economy.

More than a farmers' market, which in the strict sense is a place where farmers may bring their produce and deal directly with buyers, the

The GMTFM will not merely provide improved market facilities; it will, as it must, go into the very root of the problem it intends to solve. It will be directly involved in the marketing of farm produce from the source to the retail counter, thereby relieving the farm producer of the complicated problem of marketing his products and enable him to concentrate more on what he is most qualified to do: to produce.

December 3, 1969

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Appendix A
Estimated Arrivals at GMTFM, 1970-71
Quantity in Metric Tons; Value in P000

Commodity	Estimated Flow Thru GMA, 1970		% Mkt. Share GMTFM	Estimated Arrivals at GMTFM, 1970	
	Quantity	Value		Quantity	Value
Cereals	644,403	358,265	-	32,220	17,913
Milled Rice	504,496	317,832	5	25,225	15,892
Milled Corn	139,907	40,433	5	6,995	2,021
Fruits, Roots, and Vegetables	722,218	263,761	-	249,216	93,764
Roots and Tubers	177,604	48,416	-	27,327	7,613
Camote	90,474	24,699	20	18,095	4,940
Cassava	64,845	17,508	10	6,484	1,751
Gabi	13,091	3,534	10	1,309	353
Pao	2,473	445	10	247	44
Tugui	1,382	249	10	138	25
Ubi	3,604	973	10	360	97
Irish Potatoes	1,735	1,008	40	694	403
Leafy Vegetables	21,007	11,025	40	8,402	4,410
Cabbage	9,281	5,828		3,712	2,331
Pechay	4,756	1,712		1,902	685
Others	6,970	3,485		2,788	1,394
Fruit Vegetables	41,394	19,457	40	16,558	7,782
Eggplant	16,699	6,546		6,680	2,618
Tomatoes	20,088	11,068		8,035	4,427
Others	4,607	1,843		1,843	737
Beans, Peas, Legumes	6,128	5,034	40	2,451	2,013
Beans (dry)	1,536	768		614	307
Mongo	4,592	4,266		1,837	1,706
Peanuts, Onions, Radish, Etc.	17,818	9,693	40	11,124	3,891
Peanuts (unshelled)	8,188	5,895		3,275	2,358
Onions	6,315	3,536		6,526	1,414
Radish	3,307	298		1,323	119
Others	8				
Bananas and Papaya	215,637	66,238	40	86,255	26,495
Banana	202,112	62,857		80,845	25,143
Papaya	13,525	3,381		5,410	1,352

Other Fresh Fruits	233,386	95,660	40	93,356	38,265
Atis	1,179	472		472	189
Avocado	5,383	1,884		2,153	754
Caimito	5,587	838		2,235	335
Cashew	2,000	400		800	160
Chico	2,448	734		979	294
Guayabano	2,807	421		1,123	168
Jackfruit	29,770	5,954		11,908	2,382
Lanzones	7,077	4,954		2,831	1,982
Mango	50,752	40,602		20,301	16,241
Pili	463	2,315		185	926
Pineapple	85,018	21,254		34,007	8,502
Watermelon	11,675	2,336		4,670	934
Calamansi	3,920	1,960		1,568	784
Mandarin	10,569	5,284		4,228	2,114
Orange	3,562	1,781		1,425	712
Pomelo	11,177	4,471		4,471	1,788
Miscellaneous	9,244	8,238	40	3,698	3,295
Garlic	3,410	6,138		1,364	2,455
Ginger	5,834	2,100		2,334	840
Meat	185,360	596,762		41,714	133,419
Poultry	30,949	93,775	35	10,832	32,821
Pork	124,837	399,478	20	24,967	79,896
Beef and Others	29,574	103,509	20	5,915	20,702
Eggs	44,925	86,256	30	13,477	25,877
Fish	141,856	182,994	30	42,557	54,898
GRAND TOTAL	1,738,762	1,488,038		379,184	325,871

GREATER MANILA TERMINAL FOOD MARKET, INC.
Financial Projections: July 1, 1969 - July 1, 1980
(In 000 Pesos)

Appendix B

	TOTAL	July 1, 1969-70	July 1, 1970-71	July 1, 1971-72	July 1, 1972-73	July 1, 1973-74	July 1, 1974-75	July 1, 1975-76	July 1, 1976-77	July 1, 1977-78	July 1, 1978-79	July 1, 1979-80
1. Sources of Funds												
Preferred Stock - Type A, 11% cumulative	20,000	Already paid up										
Preferred Stock - Type B, 10% guaranteed	20,000	20,000										
Common Stock	60,000	25,000	25,000	10,000								
Foreign Loans (Initial)	130,000	130,000										
Local Loans (Initial)	48,000	48,000										
Cash Loans (Additional)	348,694*	-	-	30,131	41,948	45,281	48,139	42,299	33,091	31,970	30,357	43,818
Total Capital & Loans	626,694	223,000	25,000	40,131	41,948	46,281	48,139	42,299	33,091	31,970	30,357	43,818
Cash Revenue Receipts	497,903	-	29,775	38,599	44,653	48,378	50,909	52,440	55,903	56,975	59,231	60,490
Financing of Marketing and Production Loans, and Commodity Loans and Advances (Revolving Fund)	14,000	-	14,000									
Deposits for rental	2,587	-	1,911	69	295	19	-	-	165	-	178	-
Other Funds Sources	514,490	-	45,686	38,668	44,948	48,397	50,909	52,440	56,068	56,975	59,409	60,490
Total Gross Funds Inflow	1,141,184	223,000	70,686	78,799	86,896	94,678	99,048	94,739	89,159	88,945	89,766	104,308
2. Projected Income												
Net Income before Financing Charges & Income Tax	205,710	-	4,979	11,030	16,334	19,792	21,392	22,524	25,636	26,398	23,349	29,216
Net Income (Loss) after Financing Charges & Income Tax	28,696		(12,124)	(6,042)	(1,011)	1,721	3,148	4,097	7,234	8,960	11,176	11,637
3. Break-even												
Surplus (Deficit) before Dividends, end of year			(12,124)	(18,166)	(19,177)	(17,456)	(14,308)	(10,211)	(2,977)	5,883	17,059	28,696

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*Cash loans after the first year are needed since total cash inflow and additional capital contributions are not sufficient for cost of servicing maturing long-term debts.

APPENDIX C

OPERATIONS PROGRAM FOR GMTFM-SPONSORED FARMERS' COOPERATIVES

I. SCHEME

A team of agricultural and marketing fieldmen is assigned to every lead GMTFM-sponsored farmers' cooperative, to lend supervisory assistance to the association and its farmer-members in production, cooperative management, marketing and other related activities.

This will foster closer and effective control and supervision of the credit to be extended by GMTFM to the cooperatives and their members, and allow for systematic gathering of farmer-borrowers' produce for distribution through GMTFM and proper loan collections.

II. TEAM COMPOSITION

For this purpose, field teams have been created, each team composed of two agricultural marketing fieldmen and one promotions/marketing fieldman, or vice versa.

A team leader, who is either an agriculturist or a marketing man, is designated to lead each team.

Supervising the activities of these teams are regional field supervisors, each of whom are held responsible for the activities of the teams assigned in a particular region.

III. TEAM FUNCTIONS

Team functions are divided into five principal areas:

1. Agricultural extension service.

2. Assistance in cooperative management.

3. Credit analysis, loan extension and collection, and other credit supervisory activities.

4. Assistance in the technical aspects of marketing, like grading and standardization, packing/crating, handling, etc.

5. Implementation of marketing agreements with borrower-farmers.

IV. PRIORITY AREAS

For the initial operations, GMTFM has established priority areas for the promotion and organization of farmers'cooperatives. This does not preclude the inclusion of other areas as soon as GMTFM is to be fully operational.

For the present, the following are the priority areas with indications of the farmers' cooperatives sponsored by GMTFM and the produce now being handled or to be handled in the near future, to wit:

PROVINCE	GMTFM SPONSORED COOPERATIVE	PRODUCE HANDLED
Ilocos Norte	Batac Procoma	Garlic
	Paoay Facoma	Garlic
Benguet	Atok Facoma Western Benguet Facoma	Potatoes, cabbages & other temperate type vegetables
Nueva Ecija	Bongabon Facoma Laur Facoma, Ligaya Farmers' Association	Onions
Bulacan	Central Poultry Coop. Marketing Association San Ildefonso Facoma	Eggs, broilers, sitao, pechay, & other native vegetables
Cavite	Silang Facoma	Papaya, pineapple, bananas
Batangas	Lodlod Facoma	Eggs, broilers
	Janopol Facoma	Hogs, broilers

Albay	Albay Procoma Ligao Ruprocoma	Tomatoes & other native vegetables Citrus products
Camarines Sur	Cam. Sur Procoma Bicol Fish Cooperative Marketing Association	Citrus products Fish & other marine products